UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,232	05/23/2000	Lundy Lewis	APB-022	3633

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EXAMINER
ENGLAND, DAVID E

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>09/577,232</td><td>LEWIS, LUNDY</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>David E. England</td><td>2143</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _____.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1 – 3 and 6 – 30* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1 – 3 and 6 – 30* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *09/25/2000* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 3 and 6 – 30 are presented for examination.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "determining interfaces between one of the network components and the network component monitoring agent" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3.   Claims 8 and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitation of "determining interfaces between one of the network components and the network component monitoring agent" is not specifically found in the specification.

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 1 – 3 and 6 – 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6.   The limitation of "service level management domain" is not specifically defined by the specification although, there are teachings of domains on page 6 of the application. The

Applicant is asked to clarify and/or confirm that the domains discussed above are the same. In

doing so, would lead to the withdrawing of this rejection.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United
> States before the invention thereof by the applicant for patent, or on an international application by another who
> has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
> thereof by the applicant for patent.

8.   The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act

of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

9.   Claims 1, 6 – 9, 11 – 14, 17 – 20 and 22 – 24 are rejected under 35 U.S.C. 102(e) as

being anticipated by Glitho et al. U.S. Patent No. 6233449 (hereinafter Glitho).

10.   Referencing claim 1, as closely interpreted by the Examiner, Glitho teaches a method of

providing service level management in a network, wherein a service associated with the network

is composed of one or more network components and a business process associated with the

network is composed of the service, the service supports operation of the business process in

connection with the network, the method comprising the steps of:

11.   selecting one component parameter, the one component parameter providing an

indication of an operational characteristic of a selected network component, the selected network

component performing an operation in support of the service supporting the business process

under service level management in association with a service level management domain, (e.g.

col. 1, line 43 – col. 2, line 29);

12.   declaring a service parameter having a state representative of a measure of performance

of the service supporting the business process under service level management in association

with the service level management domain, the state having a value used to determine

conformity to an agreed upon service level, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55

– col. 5, line 40);

13.   determining how the selected component parameter has an effect on the state of the

service parameter to provide service level management of the business process in association

with the service level management domain, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55

– col. 5, line 40).

14.   Referencing claim 6, as closely interpreted by the Examiner, Glitho teaches the state

representative of the service associated with the selected one or more parameters represents at

least one of:

15.   a response time of a network resource;

16.   traffic congestion of a network resource, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line

55 – col. 5, line 40);

17.   availability of a network resource;

18.   reliability of a network resource, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55 –

col. 5, line 40);

19.   security of a network resource;

20.   performance of a network resource, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55 –

col. 5, line 40); and

21.   configuration of a network resource.

22.   Referencing claim 7, as closely interpreted by the Examiner, Glitho teaches one of the

network components is associated with a network component monitoring agent of a network

management system, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55 – col. 5, line 40).

23.   Referencing claim 8, as interpreted by the Examiner, Glitho teaches the step of

determining interfaces between one of the network components and the network component

monitoring agent, (e.g. col. 5, lines 12 – 54).

24.   Referencing claim 9, as closely interpreted by the Examiner, Glitho teaches a method of

implementing service level management associated with a service level management domain in a

network having one or more network entities addressable by the network to manage a service

supporting operation of a business process related to the network, the method comprising the

steps of,

25.   identifying a plurality of component parameters associated with the one or more network

entities, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55 – col. 5, line 40);

26.   designating one of the plurality of component parameters a service parameter, the service

parameter providing an indication of a state of the service supporting a business process under

service level management in association with a service level management domain, (e.g. col. 1,

line 43 – col. 2, line 29 & col. 4, line 55 – col. 5, line 40); and

27.   determining from the service parameter a level of the service to manage the service in

order to provide service level management of the business process in association with the service

level management domain, the level of the service indicative of a measure of performance of the

service, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55 – col. 5, line 40).

28.   Referencing claim 11, as closely interpreted by the Examiner, Glitho teaches the step of

managing the network based on the state of the service indicated by the service parameter, (e.g.

col. 1, line 43 – col. 2, line 29 & col. 4, line 55 – col. 5, line 40).

29.   Referencing claim12, as closely interpreted by the Examiner, Glitho teaches the step of

instructing the one or more network entities addressable by the network to take an action based

on the state of the service indicated by the service parameter, (e.g. col. 1, line 43 – col. 2, line 29

& col. 4, line 55 – col. 5, line 40).

30.   Referencing claim 13, as closely interpreted by the Examiner, Glitho teaches the step of

interfacing with another management platform associated with the network to manage the service

associated with the network, (e.g. col. 1, line 43 – col. 2, line 29 & col. 4, line 55 – col. 5, line

40).

31.   Claims 14, 17 – 20, 22 – 24, 26 and 28 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

32.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

33.   Claims 2, 3, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Glitho (6233449) in view of Hunter (6449603).

34.   As per claim 2, Glitho does not specifically teach the step, representing how the

component parameter has an effect on the service parameters by one or more of:

35.   decision tree;

36.   propositional statement;

37.   quantified statement;

38.   weighted listing;

39.   graph.

40.   Hunter teaches the step, representing how the component parameter has an effect on the

service parameters by one or more of:

41.   decision tree;

42.   propositional statement;

43.   quantified statement;

44.   weighted listing;

45.   graph, (e.g. col. 1, line 9 – col. 2, line 64 & col. 7, line 60 – col. 8, line 48). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to combine

Hunter with Glitho because it would be more efficient for a system to utilize types of algorithms

and/or statistical applications to train a system to predict outcomes of events utilizing what is

most likely to happen, (i.e. statistical data, example choosing a chores of action that happens

90% of the time rather then the action that happens 10% of the time).

46.   As per claim 3, Glitho does not specifically teach a process to determine how the

component parameter has an effect on the service parameters, the process comprising one or

more of:

47.   a data mining based process;

48.   a neural network based process;

49.   a machine learning based process;

50.   an ID3 derivative (iterative dichotomizing third) based process;

51.   an algorithm based process; and

52.   a selected statistical based process.

53.   Hunter teaches a process to determine how the component parameter has an effect on the

service parameters, the process comprising one or more of:

54.   a data mining based process;

55.   a neural network based process, (e.g. col. 1, line 9 – col. 2, line 64);

56.   a machine learning based process, (e.g. col. 1, line 9 – col. 2, line 64);

57.   an ID3 derivative (iterative dichotomizing third) based process;

58.   an algorithm based process, (e.g. col. 1, line 9 – col. 2, line 64); and

59.   a selected statistical based process, (e.g. col. 1, line 9 – col. 2, line 64). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to combine

Hunter with Glitho because of similar reasons stated above.

60.   Claims 15 and 16 are rejected for similar reasons stated above.

61.   Claims 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glitho

(6233449) in view of Hunter (6449603) in further view of Adriaans et al. (6311175) (hereinafter

Adriaans).

62.   As per claim 10, Glitho and Hunter teach all that is disclosed above, more specifically

Hunter teaches the use of parameters that have been process and selecting parameters randomly

from a list and reusing parameters that have been utilized in algorithms, (e.g. col. 6, line 20 – col.

8, line 44), but does not specifically teach storing the plurality of component parameters

associated with the one or more network entities in a storage device; and

63.   taking an action using the stored component parameters to determine how the plurality of

component parameters affect the service parameter to manage the service associated with the

network. Adriaans teaches storing the plurality of component parameters associated with the one

or more network entities in a storage device, (e.g. col. 5, lines 1 – 47, *"database"* & col. 6, line

31 – col. 7, line 16); and

64.   taking an action using the stored component parameters to determine how the plurality of

component parameters affect the service parameter to manage the service associated with the

network, (e.g. col. 5, lines 1 – 47, *"this information may them be used in a number of ways,*

including trend analysis, performance optimization, and monitor optimization." & col. 6, line 31

– col. 7, line 16). It would have been obvious to one of ordinary skill in the art at the time the

invention was conceived to combine Adriaans with the combine system of Glitho and Hunter

because saving parameters enables the system to access information to learn trends in a system

and become more efficient in processing data. These learning techniques enable the management

environment to better adapt itself to the system being managed. Accordingly, once additional

information becomes available about the system, better management of the system environment

is possible. Further information will then be collected and stored so that the learning process

continues. In fact, the entire monitoring, learning, and adapting process provided by the system

and method of the present invention is continuous and iterative.

65.   Claim 21 is rejected for similar reasons as stated above.

66.   Claims 25, 27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Glitho (6233449) in view of Yemini et al. (6249755) (hereinafter Yemini).

67.   As per claim 25, as closely interpreted by the Examiner, Glitho does not specifically

teach the service level management domain comprises a plurality of management applications

integrated into a hierarchical structure having a plurality of layers. Yemini teaches the service

level management domain comprises a plurality of management applications integrated into a

hierarchical structure having a plurality of layers, (e.g. col. 2, lines 6 – 46 & col. 7, lines 8 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was

conceived to combine Glitho with Yemini because it would be advantageous for a system to

have a type of monitoring agent on more then one layer of the OSI network model to monitor

information that other layers are incapable of monitoring.

68.   Claims 27, 29 and 30 are rejected for similar reasons as stated above.

Response to Arguments

69.   Applicant's arguments with respect to claims 1 – 3 and 6 – 30 have been considered but

are moot in view of the new ground(s) of rejection.

Conclusion

70.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

71.   a.   Galand et al. U.S. Patent No. 6424624 discloses Method and system for

implementing congestion detection and flow control in high speed digital network.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David E. England whose telephone number is 703-305-5333 and

571-272-3912 as of Oct. 28th. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A. Wiley can be reached on 703-308-5221. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David E. England
Examiner
Art Unit 2143

De *DL*

DAVID WILEY
SUPERVISORY PATENT EXAMINER
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